DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 1
01/11/07

Please see instructions on page 2 before filling out the form.

All information is required. If information is missing, the application will not be processed.

IDENTIFICATION	
1. Company Name	Eagle Precast Company
2. Facility Name (if different than #1)	Eagle Precast Company, Caldwell, Idaho
3. Facility I.D. No.	NA
4. Brief Project Description:	Cement Batch Plant
FACILITY INFORMATION	
5. Owned/operated by: (√ if applicable)	☐ Federal government ☐ County government ☐ State government ☐ City government
6. Primary Facility Permit Contact Person/Title	Robert Walker, Plant Manager
7. Telephone Number and Email Address	(208) 454-8116
8. Alternate Facility Contact Person/Title	Bill Howes
9. Telephone Number and Email Address	(801) 514--0859; howesgirls@gmail.com
10. Address to which permit should be sent	20059 Simplot Bld
11. City/State/Zip	Caldwell, ID
12. Equipment Location Address (if different than #9)	Outside Greenleaf
13. City/State/Zip	Canyon County, Idaho
14. Is the Equipment Portable?	☒ Yes ☐ No
15. SIC Code(s) and NAISC Code	Primary SIC: 3273 Secondary SIC (if any): NAICS:
16. Brief Business Description and Principal Product	Cement Batch Plant
17. Identify any adjacent or contiguous facility that this company owns and/or operates	
PERMIT APPLICATION TYPE	
18. Specify Reason for Application	☐ New Facility ☐ New Source at Existing Facility ☐ Modify Existing Source: Permit No.:_____ Date Issued: _____ ☒ Unpermitted Existing Source: ☐ Required by Enforcement Action: Case No.:_____
CERTIFICATION	
IN ACCORDANCE WITH IDAPA 58.01.01.123 (RULES FOR THE CONTROL OF AIR POLLUTION IN IDAHO), I CERTIFY BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION IN THE DOCUMENT ARE TRUE, ACCURATE, AND COMPLETE.	
19. Responsible Official's Name/Title	Robert L. Walker
20. RESPONSIBLE OFFICIAL SIGNATURE	Robert L Walker — Date: 2/20/07
21. ☐ Check here to indicate you would like to review a draft permit prior to final issuance.	

RECEIVED

FEB 20 2007

Department of Environmental Quality
State Air Program

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 1
01/11/07

Please see instructions on page 2 before filling out the form.

DEQ USE ONLY
Date Received
Project Number
Payment / Fees Included? Yes ☐ No ☐
Check Number

COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER

1. Company Name	Eagle Precast Company		
2. Facility Name	Eagle Precast Company, Caldwell, Idaho	3. Facility ID No.	NA
4. Brief Project Description - One sentence or less	Cement Batch Plant		

PERMIT APPLICATION TYPE

5. ☐ New Facility ☐ New Source at Existing Facility ☒ Unpermitted Existing Source
☐ Modify Existing Source: Permit No.:_____ Date Issued:_____
☐ Required by Enforcement Action: Case No.:_____

6. ☒ Minor PTC ☐ Major PTC

FORMS INCLUDED

Included	N/A	Forms	DEQ Verify
☒	☐	Form GI – Facility Information	☐
☐	☒	Form EU0 – Emissions Units General	☐
☐	☒	Form EU1 - Industrial Engine Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU2 - Nonmetallic Mineral Processing Plants Please Specify number of forms attached: _____	☐
☐	☒	Form EU3 - Spray Paint Booth Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU4 - Cooling Tower Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU5 – Boiler Information Please Specify number of forms attached: _____	☐
☐	☒	Form HMAP – Hot Mix Asphalt Plant Please Specify number of forms attached: _____	☐
☒	☐	Form CBP - Concrete Batch Plant Please Specify number of forms attached: _____	☐
☐	☒	Form BCE - Baghouses Control Equipment	☐
☐	☒	Form SCE - Scrubbers Control Equipment	☐
☒	☐	Forms EI-CP1 - EI-CP4 - Emissions Inventory– criteria pollutants (Excel workbook, all 4 worksheets)	☐
☒	☐	PP – Plot Plan	☐
☐	☒	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	☐
☐	☒	Form FRA – Federal Regulation Applicability	☐

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 1
01/11/07

Please see instructions on page 4 before filling out the form.

GENERAL INFORMATION

Company Name:	EAGLE PRECAST COMPANY		
Facility Name:	CALDWELL, IDAHO	**Facility ID No:**	
Brief Project Description:	CONCRETE BATCH PLANT		
Mailing Address:	20059 SIMPLOT BLD		
City:	CALDWELL	**State:**	IDAHO
Zip Code:	83605	**County:**	CANYON
General Nature of Business & Products:	PRECAST / PRESTRESSED CONCRETE MANUFACTURING		

Contact Name, Title:	ROBERT WALKER , PLANT MANAGER		
Phone:	(208) 454-8116	**Cell:**	(208) 695-6116
Email:	robwalker@eagleprecast.com		

Owner or Responsible Official Name, Title:	ROBERT WALKER PLANT MANAGER
Phone:	(208) 454-8116
Email:	robwalker@eagleprecast.com

Proposed Initial Plant Location:	20059 SIMPLOT BLVD		
Nearest City:	GREENLEAF	**Estimated Startup Date:**	AUGUST 2005
County:	CANYON		

Reason for Application:	X Permit to construct a new source ☐ Permit to operate an existing unpermitted source ☐ Permit to modify/revise an existing permitted source (identify the permit below) Permit No.: Issue Date: Facility ID:

☐ Check here to indicate you would like to review a draft permit prior to final issuance.

Comments:

Eagle Precast moved to the Caldwell location from the old Monroc, Inc. location at highway 55 and State Street in Eagle.

CONCRETE BATCH PLANT INFORMATION

1. Concrete Batch Plant

Manufacturer:	ERIE STRAYER 6 C.Y. DUAL MIXER	**Model:**	CENTRAL MIX PLANT
Manufacture Date:	1987		
Maximum Hourly Throughput:	60 (cy/hour)		
Maximum Daily Throughput:	480 (cy/day)		
Maximum Annual Throughput:	124,800 (cy/year)		
Requested Annual Throughput:	36,000 (cy/year)		

2a. Cement Storage Silo Baghouse No. 3

Manufacturer:	GRIFFIN ENVIORNMENTAL	**Model:**	RCA6/363B
Stack Height from Ground:	98 (ft)	**Exit Air Flow Rate:**	(acfm)
Stack Inside Diameter:	8'X12' (ft)	* **PM_{10} Control Efficiency:**	99.9 (%)
* **Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

2b. Cement Storage Silo Baghouse No. 4

Manufacturer:	GRIFFIN ENVIORNMENTAL	**Model:**	RCA6/363B
Stack Height from Ground:	98 (ft)	**Exit Air Flow Rate:**	(acfm)
Stack Inside Diameter:	4'X12' (ft)	* **PM_{10} Control Efficiency:**	99.9 (%)
* **Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

2c. Cement Supplement (such as flyash) Storage Silo Baghouse No. ____

Manufacturer:	N/A	**Model:**	
Stack Height from Ground:	(ft)	**Exit Air Flow Rate:**	(acfm)
Stack Inside Diameter:	(ft)	* **PM_{10} Control Efficiency:**	(%)
* **Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

2d. Cement Supplement (such as flyash) Storage Silo Baghouse No. ____

Manufacturer:	N/A	**Model:**	
Stack Height from Ground:	(ft)	**Exit Air Flow Rate:**	(acfm)
Stack Inside Diameter:	(ft)	* **PM_{10} Control Efficiency:**	(%)
* **Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

3. Weigh Batcher Baghouse(s)

Manufacturer:	ERIE STRAYER	**Model:**	
Stack Height from Ground:	68' (ft)	**Exit Air Flow Rate:**	(acfm)
Stack Inside Diameter:	1.5'X6'X1.5' (ft)	* **PM_{10} Control Efficiency:**	99.9 (%)
* **Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

ELECTRICAL GENERATOR SET INFORMATION (IF APPLICABLE)

Manufacturer:	N/A	**Model:**	
Maximum Rated Capacity:	☐ Hp ☐ kW		
Fuel Type:	☐ Gasoline ☐ Diesel ☐ Natural Gas ☐ Propane		
Maximum Fuel Usage Rate:	☐ gal./hr. ☐ cfh		
Maximum Daily Hrs. of Operations:	(hours/day)		
Maximum Annual Hrs. of Operations:	(hours/year)		
Stack Parameters:	Stack Height from Ground (ft): _____	Stack Exhaust Flow Rate (acfm):	_____
	Stack Inside Diameter (ft): _____	Stack Exhaust Gas Temperature (°F):	_____

ADDITIONAL GENERATOR (if applicable)

Manufacturer:	N/A	**Model:**	
Maximum Rated Capacity:	☐ Hp ☐ kW		
Fuel Type:	☐ Gasoline ☐ Diesel ☐ Natural Gas ☐ Propane		
Maximum Fuel Usage Rate:	☐ gal./hr. ☐ cfh		
Maximum Daily Hrs. of Operations:	(hours/day)		
Maximum Annual Hrs. of Operations:	(hours/year)		
Stack Parameters:	Stack Height from Ground (ft): _____	Stack Exhaust Flow Rate (acfm):	_____
	Stack Inside Diameter (ft): _____	Stack Exhaust Gas Temperature (°F):	_____

☒ **$1,000 PTC application fee enclosed**

Certification of Truth, Accuracy, and Completeness (by Responsible Official)
I hereby certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this and any attached and/or referenced document(s) are true, accurate, and complete in accordance with IDAPA 58.01.01.123-124.

Robert L Walker — *Responsible Official Signature*

Plant Manager — *Responsible Official Title*

2/20/07 — *Date*

Robert L. Walker — *Print or Type Responsible Official Name*

DEQ AIR QUALITY PROGRAM
1410 N. Hilton
Boise, ID 83706
For assistance: (208) 373-0502

PERMIT TO CONSTRUCT APPLICATION

Company Name:	Eagle Precast Company
Facility Name:	Eagle Precast Company, Caldwell, Idaho
Facility ID No.:	NA
Brief Project Description:	Cement Batch Plant

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - POINT SOURCES

		3.											
1.	2.	PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													
Cement delivery to silo (controlled)		0.01	0.00										
Weigh hopper loading (controlled)		0.23	0.07										
Central mix loading		2.71	0.81										
(insert more rows as needed)													
Total		2.94	0.88										

DEQ AIR QUALITY PROGRAM
1410 N. Hilton
Boise, ID 83706
For assistance: (208) 373-0502

PERMIT TO CONSTRUCT APPLICATION

Company Name:	Eagle Precast Company
Facility Name:	Eagle Precast Company, Caldwell, Idaho
Facility ID No.:	NA
Brief Project Description:	Cement Batch Plant

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - FUGITIVE SOURCES

		3.											
1.	2.	PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Fugitive Source Name	Fugitive ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Fugitive Source(s)													
Aggregate transfer to ground storage		0.19	0.06										
Sand transfer to ground storage		0.04	0.01										
Aggregate transfer to conveyor		0.19	0.06										
Sand transfer to conveyor		0.04	0.01										
Aggregate transfer to elevated storage		0.19	0.06										
Sand transfer to elevated storage		0.04	0.01										
... (insert more rows as needed)													
Total		0.68	0.21										

Form #AQ-F-C016
Rev. 2
12/12/06

Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706
For assistance, call the Air Permit Hotline: 1-877-5PERMIT

DEQ - AIR QUALITY PROGRAM

PORTABLE EQUIPMENT RELOCATION FORM

Company Name: EAGLE PRECAST COMPANY	
Phone Number: (208) 454-8116	
Mailing Address: 20059 SIMPLOT BLD	
Contact: ROBERT WALKER, PLANT MANAGER	
Signature: Robert Walker	Date: 2/20/07

Plant Type (HMA, Rock Crusher, Mfr., Model No.)			
Type of Permit	Permit to Construct or Operating Permit	Yes [X] No [ ]	If Yes, Facility ID: To be determined; applying for permit.
	Permit by Rule	Yes [ ] No [X]	If Yes, Facility ID:
Fuel Type for Generator: NA			
Have any major components of the plant or its air pollution equipment been replaced or modified since the plant last operated? Yes [ ] No [X] If Yes, attach explanation on additional paper.			

Current Location, include county and nearest city: 20059 SIMPLOT BLD
New Location, include county and nearest city: Greenleaf, Canyon County
Estimated Startup Date: August 2005 (month/day/year) Estimated End Date: NA (month/day/year)

Will Plant be co-located with another rock crusher, concrete batch, or hot-mix asphalt plant at new location?				Yes [ ] No [X]
If Yes	Name of Other Company:			
	Type of Plant: ○ Rock Crusher ○ Concrete Batch ○ Hot-Mix Asphalt			
	Type of Permit	Permit to Construct or Operating Permit	Yes No	If Yes, Facility ID:
		Permit by Rule	Yes No	If Yes, Facility ID:
Will plant be operated in conjunction with a state of Idaho contract?				Yes [ ] No [X]
If Yes	Contract No.:			
	State of Idaho Contact Person:			
	Phone Number:			

THIS FORM MUST BE SUBMITTED TEN (10) DAYS BEFORE PLANT IS RELOCATED.

A scaled plot plan identifying the property boundary of the new site must be included with this form (see Permit Application Form PP-Plot Plan for guidance).

Mail to: **Air Quality Program Office - Application Processing**
Department of Environmental Quality
1410 North Hilton
Boise, ID 83706-1255

Or, Fax to: **208-373-0340**
Attn: Air Quality Program Office - Application Processing

EAGLE PRECAST
Greenleaf Concrete Batch Plant

CONCRETE BATCHING EMISSIONS

Eagle Precast Company 20058 Simplot Blvd, Greenleaf, Canyon County, Idaho

	PM Emissions		PM_{10} Emissions	
	lb/hr	tpy	lb/hr	tpy
Fugitive	1.42	0.43	0.68	0.21
Point	9.18	2.75	2.94	0.88

Process[1]	Fugitive or Point	Throughput		PM Emission Factor[2]	PM_{10} Emission Factor[2]	PM Emissions		PM_{10} Emissions	
		yd^3/hr	yd^3/yr			lb/hr	tpy	lb/hr	tpy
Aggregate transfer to ground storage	Fugitive	60	36,000	0.0064 lb/yd^3	0.0031 lb/yd^3	0.38	0.12	0.186	0.06
Sand transfer to ground storage	Fugitive	60	36,000	0.0015 lb/yd^3	0.0007 lb/yd^3	0.09	0.03	0.042	0.01
Aggregate transfer to conveyor	Fugitive	60	36,000	0.0064 lb/yd^3	0.0031 lb/yd^3	0.38	0.12	0.186	0.06
Sand transfer to conveyor	Fugitive	60	36,000	0.0015 lb/yd^3	0.0007 lb/yd^3	0.09	0.03	0.042	0.01
Aggregate transfer to elevated storage	Fugitive	60	36,000	0.0064 lb/yd^3	0.0031 lb/yd^3	0.38	0.12	0.186	0.06
Sand transfer to elevated storage	Fugitive	60	36,000	0.0015 lb/yd^3	0.0007 lb/yd^3	0.09	0.03	0.042	0.01
Cement delivery to silo (controlled)	Point	60	36,000	0.0002 lb/yd^3	0.0001 lb/yd^3	0.01	0.00	0.006	0.002
Weigh hopper loading (controlled)	Point	60	36,000	0.0079 lb/yd^3	0.0038 lb/yd^3	0.47	0.14	0.228	0.068
Central mix loading	Point	60	36,000	0.144943 lb/yd^3	0.045122 lb/yd^3	8.70	2.61	2.707	0.812

[1] Controlled and uncontrolled emission factors are the same for all processes, except **Central Mix Loading**, see AP-42 reference given in Footnote 2

[2] AP-42, 5th Edition, Table 11.12-2, -5

EAGLE PRECAST
Greenleaf Concrete Batch Plant

CENTRAL MIX LOADING EMISSION FACTOR EQUATIONS

specific data are available

$$E = k\,(0.0032)\left[\frac{U^{a}}{M^{b}}\right] + c \qquad \text{Equation 11.1}$$

E = Emission factor in lbs./ton of cement and cement supplement
k = Particle size multiplier (dimensionless)
U = Wind speed at the material drop point, miles per hour (mph)
M = Minimum moisture (% by weight) of cement and cement supplement
a, b = Exponents
c = Constant

Equation parameters for central mix operations

	k	a	b	c			
PM	5.9	0.6	1.3	0.12	U=	10	Default
PM-10	1.92	0.4	1.3	0.04	M=	4	Natural moisture
PM controlled	0.19	0.95	0.9	0.001			
PM-10 controlled	0.13	0.95	0.9	0.001			

Equation parameters for truck mix operations

	k	a	b	c			
PM	0.995	0.995	0.995	0.995	U=	10	Default
PM-10	0.278	0.278	0.278	0.278	M=	4	Natural moisture
PM controlled	0.8	1.75	0.3	0.013			
PM-10 controlled	0.32	1.75	0.3	0.0052			

Table 11.12-4. Equation Parameters for Central Mix Operations

Condition	Parameter Category	k	a	b	c
Controlled[1]	Total PM	0.19	0.95	0.9	0.0010
	PM_{10}	0.13	0.45	0.9	0.0010
	$PM_{10-2.5}$	0.12	0.45	0.9	0.0009
	$PM_{2.5}$	0.03	0.45	0.9	0.0002
Uncontrolled[1]	Total PM	5.90	0.6	1.3	0.120
	PM_{10}	1.92	0.4	1.3	0.040
	$PM_{10-2.5}$	1.71	0.4	1.3	0.036
	$PM_{2.5}$	0.38	0.4	1.3	0

Table 11.12-3. Equation Parameters for Truck Mix Operations

Condition	Parameter Category	k	a	b	c
Controlled[1]	Total PM	0.8	1.75	0.3	0.013
	PM_{10}	0.32	1.75	0.3	0.0052
	$PM_{10-2.5}$	0.288	1.75	0.3	0.00468
	$PM_{2.5}$	0.048	1.75	0.3	0.00078
Uncontrolled[1]	Total PM	0.995			
	PM_{10}	0.278			
	$PM_{10-2.5}$	0.228			
	$PM_{2.5}$	0.050			

mission factors expressed in lbs/tons of cement and cement supplement

onvert from units of lbs/ton to units of kilograms per mega gram, the emissions calculated by

TABLE 11.12-6 (ENGLISH UNITS)
PLANT WIDE EMISSION FACTORS PER YARD OF CENTRAL MIX CONCRETE [a]

	Uncontrolled		Controlled	
	PM (lb/yd^3)	PM-10 (lb/yd^3)	PM (lb/yd^3)	PM-10 (lb/yd^3)
Aggregate delivery to ground storage (3-05-011-21)	0.0064	0.0031	0.0064	0.0031
Sand delivery to ground storage (3-05-011-22)	0.0015	0.0007	0.0015	0.0007
Aggregate transfer to conveyor (3-05-011-23)	0.0064	0.0031	0.0064	0.0031
Sand transfer to conveyor (3-05-011-24)	0.0015	0.0007	0.0015	0.0007
Aggregate transfer to elevated storage (3-05-011-04)	0.0064	0.0031	0.0064	0.0031
Sand transfer to elevated storage (3-05-011-05)	0.0015	0.0007	0.0015	0.0007
Cement delivery to Silo (3-05-011-07 controlled)	0.0002	0.0001	0.0002	0.0001
Cement supplement delivery to Silo (3-05-011-17 controlled)	0.0003	0.0002	0.0003	0.0002
Weigh hopper loading (3-05-011-08)	0.0079	0.0038	0.0079	0.0038
Central mix loading (3-05-011-09)	See Equation 11.12-2			

[a] Total facility emissions are the sum of the emissions calculated in Tables 11.12-4 or 11.12-5. Total facility emissions do not include road dust and wind blown dust. The emission factors in Tables 11.12-4 and 11.12-5 are based upon the following composition of one yard of concrete.

Coarse Aggregate	1865. pounds
Sand	1428. pounds
Cement	491. pounds
Cement Supplement	73. pounds
Water	20. gallons (167 pounds)

EAGLE PRECAST
Greenleaf Concrete Batch

CONCRETE BATCHING METAL EMISSIONS

Concrete Throughput		Concrete Throughput[1]	
yd^3/hr	yd^3/yr	ton/hr	ton/yr
60	36,000	121	72,432

Annual Emissions (ton/yr)		Arsenic	Beryllium	Cadmium	Chromium	Chromium 6*	Lead	Manganese	Nickel	Phosphorus	Selenium
Significant Level		0.00007	0.000001	0.00001	0.00006	0.00001	0.00004 0.6 tpy	0.00953	0.00076	0.00116	0.00000

Hourly Emissions (lb/hr)		Arsenic	Beryllium	Cadmium	Chromium	Chromium 6*	Lead	Manganese	Nickel	Phosphorus	Selenium
EL (lb/hr)		0.00023 1.56E-06	0.0000022 2.85E-05	0.00003 3.70E-06	0.00020 3.30E-02	0.00004 5.60E-07	0.00013 NA	0.03177 3.33E-01	0.00252 2.75E-05	0.00386 7.00E-03	0.00000 1.30E-02
Modeling Required?		Yes	No	Yes	No	Yes	No	No	Yes	No	No

Process	Emission Factors (lb/ton)									
	Arsenic	Beryllium	Cadmium	Chromium	Chromium 6*	Lead	Manganese	Nickel	Phosphorus	Selenium
Cement Silo Filling	1.68E-06	1.79E-08	2.34E-07	2.52E-07	5.04E-08	7.36E-07	2.02E-04	1.76E-05	1.18E-05	ND
Central Mix Batching	2.32E-07	ND	1.18E-08	1.42E-06	2.84E-07	3.82E-07	6.12E-05	3.28E-06	2.02E-05	ND

Process	Emissions (lb/hr)									
	Arsenic	Beryllium	Cadmium	Chromium	Chromium 6*	Lead	Manganese	Nickel	Phosphorus	Selenium
Cement Silo Filling	0.00020	0.00000	0.00003	0.00003	0.00001	0.00009	0.02439	0.00212	0.00142	0
Central Mix Batching	0.00003	0	0.00000	0.00017	0.00003	0.00005	0.00739	0.00040	0.00244	0

Process	Emissions (tpy)									
	Arsenic	Beryllium	Cadmium	Chromium	Chromium 6*	Lead	Manganese	Nickel	Phosphorus	Selenium
Cement Silo Filling	0.00006	0.00000	0.00001	0.00001	0.00000	0.00003	0.00732	0.00064	0.00043	0
Central Mix Batching	0.00001	0	0.00000	0.00005	0.00001	0.00001	0.00222	0.00012	0.00073	0

[1] One cubic yard of concrete is 4,024 pounds, AP-42, Fifth Edition, Table 11.12-2, footnote a.

* 20% of chromium based on conversation with Cheryl Robinson, 2-1-07.

TABLE 11.12-8 (ENGLISH UNITS)
CONCRETE BATCH PLANT METAL EMISSION FACTORS [a]

	Arsenic	Beryllium	Cadmium	Total Chromium	Lead	Manganese	Nickel	Total Phosphorus	Selenium	Emission Factor Rating
Cement Silo Filling [b] (SCC 3-05-011-07)	1.68e-06	1.79e-08	2.34e-07	2.52e-07	7.36e-07	2.02e-04	1.76e-05	1.18e-05	ND	E
w/ Fabric Filter	4.24e-09	4.86e-10	4.86e-10	2.90e-08	1.09e-08	1.17e-07	4.18e-08	ND	ND	E
Cement Supplement Silo Filling [b] (SCC 3-05-011-17)	ND	ND	ND	ND	ND	ND	ND	ND	ND	E
w/ Fabric Filter	1.00e-06	9.04e-08	1.98e-10	1.22e-06	5.20e-07	2.56e-07	2.28e-06	3.54e-06	7.24e-08	E
Central Mix Batching [c] (SCC 3-05-011-09)	2.32e-07	ND	1.18e-08	1.42e-06	3.82e-07	6.12e-05	3.28e-06	2.02e-05	ND	E
w/ Fabric Filter	1.87e-08	ND	7.10e-10	1.27e-07	3.66e-08	3.78e-06	2.48e-07	1.20e-06	ND	E
Truck Loading [d] (SCC 3-05-011-10)	3.04e-06	2.44e-07	3.42e-08	1.14e-05	3.62e-06	6.12e-05	1.19e-05	3.84e-05	2.62e-06	E
w/ Fabric Filter	1.16e-06	1.04e-07	9.06e-09	4.10e-06	1.53e-06	2.08e-05	4.78e-06	1.23e-05	1.13e-07	E

ND=No data

[a] All emission factors are in lb of pollutant per ton of material loaded unless noted otherwise. Loaded material includes cement, aggregate, sand

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 NORTH HILTON, BOISE, ID 83706 · (208) 373-0502

C. L. "BUTCH" OTTER, GOVERNOR
TONI HARDESTY, DIRECTOR

February 15, 2007

Chris Johnson
JBR
Boise Office

RE: Modeling Protocol for the Eagle Precast Facility Located near Greenleaf, Idaho

Chris:

DEQ received your dispersion modeling protocol on February 14, 2007. The modeling protocol was submitted on behalf of Eagle Precast Company. The modeling protocol proposes methods and data for use in the ambient impact analyses of a Permit to Construct application for a new central mix concrete batch plant near Greenleaf, Idaho.

The modeling protocol has been reviewed and DEQ has no additional comments. DEQ's modeling staff considers the submitted dispersion modeling protocol to be approved, and DEQ concurs that additional modeling analyses are not required.

When submitting the application, please attach the protocol and this protocol approval notification.

If you have any further questions or comments, please contact me at (208) 373-0112.

Sincerely,

Kevin Schilling
Stationary Source Air Modeling Coordinator
Idaho Department of Environmental Quality
208 373-0112

Air Dispersion Modeling Protocol – Concrete Batch Plant

Proposed Project: Eagle Precast Company
Location: Initial location 20059 Simplot Blvd, outside Greenleaf, Canyon County, Idaho

1) The proposed facility will be a central mix concrete batch plant capable of producing 60 yd^3 per hour and 36,000 yd^3 per year. The emission inventory for the facility is provided in the accompanying spreadsheet. It shows PTE for PM-10 would be 1.09 tons/yr, 0.88 tons/yr from point sources and 0.21 tons/yr from fugitives.

That emission inventory clearly documents compliance with IDEQ EI recommendations from Cheryl Robinson, documented below

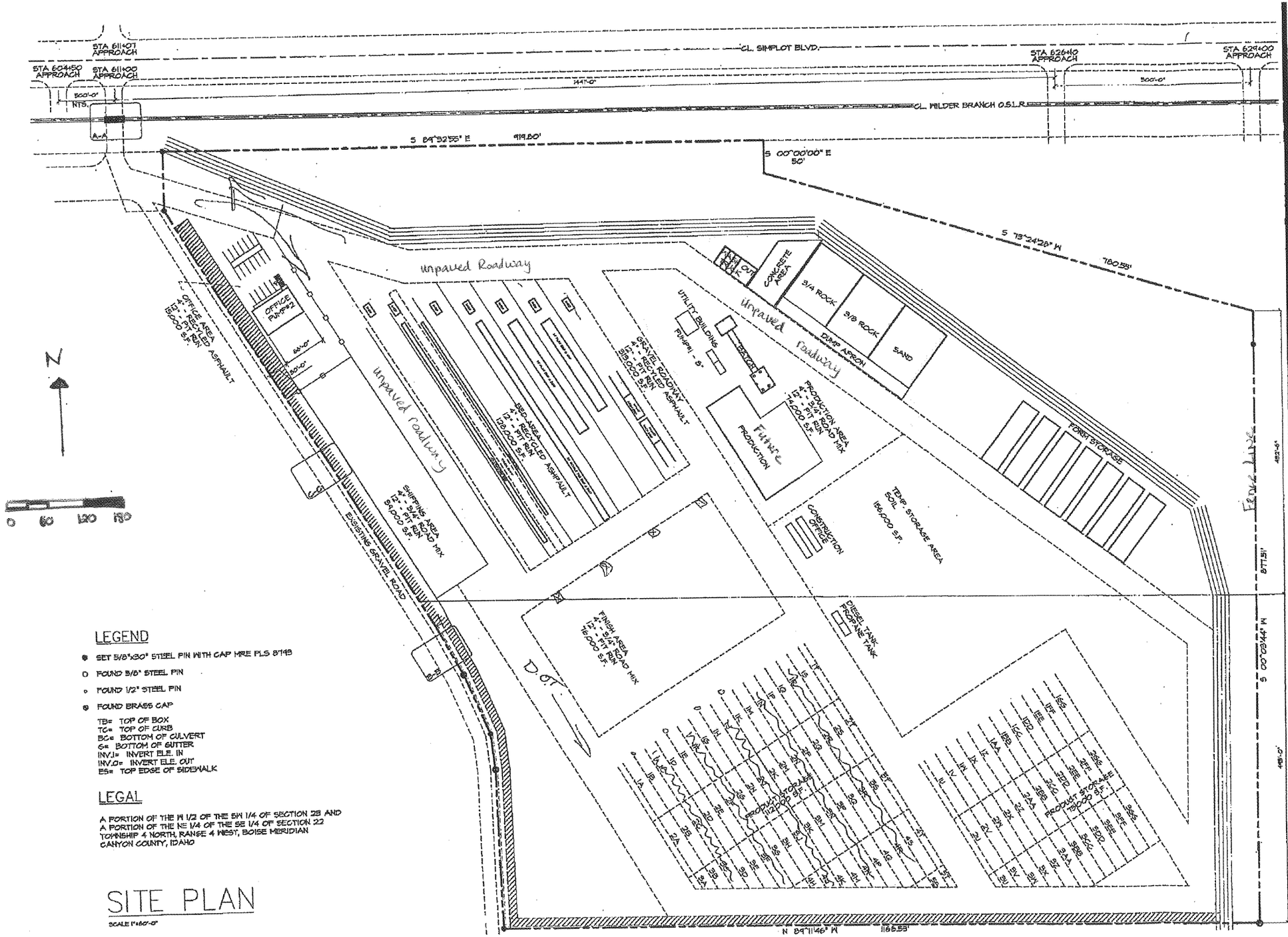
a. Emissions will be calculated using AP-42 emission factors and good engineering judgment.
b. Fugitive emissions sources will be included in the EI, except for emissions resulting from vehicle traffic and wind erosion from storage piles.
c. The level of emissions control assumed for each source will be clearly specified.
d. Cr+6 will be presumed to comprise 20% of the total chromium emissions from cement silo filling, and 30% of the total chromium emissions from cement supplement (flyash) silo filling.

2) The proposed project will be reasonably represented by all of the criteria specified below. The IDEQ general analysis should be very conservative, because proposed throughput at the Eagle Precast Greenleaf area operation will be no more than 20% of the assumptions IDEQ modeled. Eagle Precast agrees to accept permit conditions requiring continuing compliance with the set-up, and throughput entries listed under Eagle PreCast in Table 1 below, and stack height, minimum setback distance(s), and control equip,ment requirements listed under Criteria IDEQ Modeled described in Table 1. The proposed permit conditions are highlighted in yellow in Table 1. Eagle Precast is requesting that the DEQ generic model results be used to demonstrate preconstruction compliance with NAAQS and TAPs for this project. No additional modeling analysis will be submitted for this project.

Table 1. CRITERIA FOR USING DEQ's CONCRETE BATCH PLANT GENERIC MODELING RESULTS FOR AIR IMPACT ANALYSES

Parameter	Criteria IDEQ Modeled	Eagle Precast Actual / Proposed Conditions
Concrete batch plant type	Truck mix (redi-mix) plant	Central Mix
Operation in any PM_{10} nonattainment area.	Not proposed.	Not proposed
Maximum daily concrete production	3,600 yd^3/day	60 yd^3/hr, or up to 720 yd^3/day with 12 hrs operation/day
Maximum annual concrete production	500,000 yd^3/yr	36,000 yd^3/yr

Minimum stack height for cement and supplement storage silo baghouse(s)	10 meters (32.8 ft)	98'
Minimum stack height for weigh hopper loading baghouse (s)	10 meters (32.8 ft)	68'
Minimum distance from nearest edge of any emissions source to the ambient air boundary	86 meters (282 ft)	> 400'
Minimum distance from nearest edge of any emissions source to any other source of emissions, including another concrete batch plant, hot mix asphalt plant, or rock crushing plant.	200 meters (656 ft)	> ¼ mile
Minimum control of truck-mix loadout source	95% Control e.g., Boot/shroud, water sprays, or baghouse/cartridge filter	95% control; water is mixed in. Emissions for central mix less than truck mix loadout.
Minimum control of weigh hopper loading	95% Control e.g., boot/shroud, water sprays, or baghouse/cartridge filter	99.9%
Minimum control of fugitive emissions from aggregate and sand transfer point sources	75% Control e.g., water sprays, shrouds, or sand/aggregate is wet on an as-received basis, and used before significantly drying out.	At least 75% Achieved via Water sprays
Presence of a generator	No generator.	No generator



LEGEND

- ● SET 5/8"x30" STEEL PIN WITH CAP MRE PLS 8749
- O FOUND 5/8" STEEL PIN
- ○ FOUND 1/2" STEEL PIN
- ⊕ FOUND BRASS CAP

TB= TOP OF BOX
TC= TOP OF CURB
BC= BOTTOM OF CULVERT
G= BOTTOM OF GUTTER
INV.I= INVERT ELE. IN
INV.O= INVERT ELE. OUT
ES= TOP EDGE OF SIDEWALK

LEGAL

A PORTION OF THE N 1/2 OF THE SW 1/4 OF SECTION 23 AND A PORTION OF THE NE 1/4 OF THE SE 1/4 OF SECTION 22 TOWNSHIP 4 NORTH, RANGE 4 WEST, BOISE MERIDIAN CANYON COUNTY, IDAHO

SITE PLAN

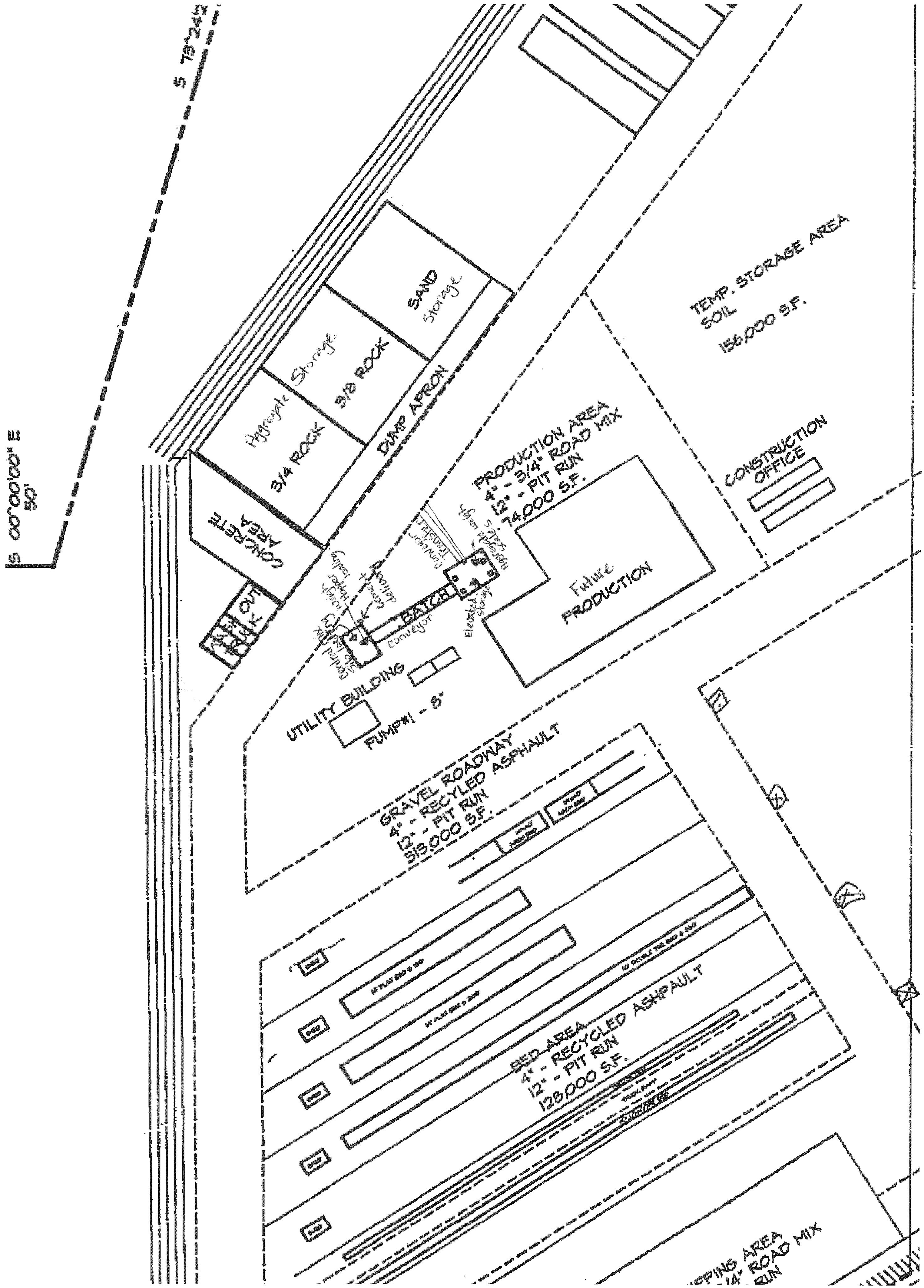
SCALE 1"=150'-0"

EAGLE PRECAST

EAGLE PRECAST COMPANY
20059 HYWAY 19
CALDWEL, ID

DRAWN BY: L HANOVER
JOB NO.
CAD FILE.
DATE 08/06/2004
REVISION

SHEET NO.
A-1


S 73°24'
S 00°00'00" E
50'
TEMP. STORAGE AREA
SOIL
156,000 S.F.
CONSTRUCTION
OFFICE
SAND
Storage
3/8 ROCK
Storage
3/4 ROCK
Aggregate
DUMP APRON
CONCRETE
AREA
OUT
PRODUCTION AREA
4" - 3/4" ROAD MIX
12" - PIT RUN
74,000 S.F.
Future
PRODUCTION
BATCH
conveyor
Conveyor
Transfer
Elevated
storage
UTILITY BUILDING
PUMP#1 - 8"
GRAVEL ROADWAY
4" - RECYLED ASPHAULT
12" - PIT RUN
313,000 S.F.
BED AREA
4" - RECYCLED ASHPAULT
12" - PIT RUN
128,000 S.F.
PING AREA
4" ROAD MIX
RUN